

What IS a Task?

A typical word problem is, quite often, simply an equation in disguise. All of the necessary information for the problem is given, the steps are given, and all the student has to do is plug the numbers into an algorithm and they have an answer. The most challenging aspect of a word problem is determining which operation to use.

By contrast, a mathematical task is a word problem for which there is no obvious answer, for which the student must create the steps for solution, and which causes the student to think and struggle in the solution. It allows various solution pathways. It may take the student quite a while to get the answer. It encourages students to talk with one another and to learn from each other. It leads to understanding math concepts.

Many times the way the problem is posed, or the question that is asked turns a story problem into a task. Ask these questions to determine if a specific word problem be turned into a task:

- What is the mathematical content of this problem?
- What aspects make the students think and struggle?
- What can we take out or modify to create constructive struggling?
- What steps does it give the students that they can come up with on their own?
- Which of the 8 mathematical practice standards does the word problem contain?
- What can be changed to make sure that the Mathematical Practice Standards are included?
- Is the task likely to engage the students?
- Is the task worthwhile- does it introduce, solidify, or help students practice mathematics?
- What are the possible strategies students might use to solve this problem?
- How will learning be assessed?